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Literature review article

# Socio-environmental conflicts resulting from extractive activities in Latin America and Corporate Social Responsibility

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#### Abstract

This study aims to analyze the socio-environmental conflicts derived from extractive activities in Latin America and the impact of Corporate Social Responsibility (CSR) in the extractive sector. The first stage included bibliometrics by authors and countries found in the scientific literature, leading to 69 publications selected for the term 2012-2017; later on, a systematic review of the literature was conducted in SCOPUS and Web of Science, starting from the recollection, organization, analysis, and interpretation of information. The results highlight three types of conflicts: environmental impact, turf wars, and the violation of human rights; these reveal that the relationships between the extractive sector and CRS should be mediated by a balance of interests and the preservation of ecosystems.

Keywords: socio-environmental conflict; extractivism; Latin America; Corporate Social Responsibility.

## Los conflictos socioambientales derivados de actividades extractivas en Latinoamérica y la Responsabilidad Social Empresarial

#### Resumen

El estudio tiene como propósito analizar los conflictos socioambientales derivados de actividades extractivas en Latinoamérica y la incidencia de la Responsabilidad Social Empresarial (RSE) en el sector extractivo. Metodológicamente, en primera instancia se realizó una bibliometría de autores y países hallados en la literatura científica, seleccionando 69 publicaciones del periodo 2012-2017; posteriormente, se desarrolló una revisión sistemática con literatura científica hallada en SCOPUS y Web of Science, a partir de la recolección, organización, análisis e interpretación de la información. Los resultados señalan tres tipos de conflictos: impactos ambientales, luchas territoriales y violación a los derechos humanos; con los cuales se evidencia que la relación sector extractivo-RSE, debe estar mediada por el equilibrio de intereses y la conservación de los ecosistemas.

Palabras clave: conflicto socioambiental, extractivismo, América Latina, Responsabilidad Social Empresarial.

# Conflitos socioambientais decorrentes de atividades extrativistas na América Latina e Responsabilidade Social Empresarial

# Resumo

O objetivo deste estudo é analisar os conflitos socioambientais decorrentes das atividades extrativistas na América Latina e o impacto da Responsabilidade Social Empresarial (RSE) no setor extrativista. A primeira etapa incluiu a bibliometria de autores e países encontrados na literatura científica, selecionando 69 publicações do período 2012-2017; posteriormente, foi realizada uma revisão sistemática com a literatura científica encontrada em SCOPUS e Web of Science, a partir da coleta, organização, análise e interpretação da informação. Os resultados indicam três categorias de conflitos: impactos ambientais, lutas territoriais e violações dos direitos humanos, que mostram que a relação setor extrativista-CSR deve ser mediada pelo equilíbrio de interesses e pela conservação dos ecossistemas.

Palavras-chave: conflito socioambiental; extrativismo; América Latina; Responsabilidade Social Empresarial.

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#### 1. Introduction

In the past few decades, the decay in ecosystems and resources has led to the upcoming of an environmental crisis which results from the intertwining of nature and society (de Oliveira Gomes Marques da Cunha, Sandoval Vásquez & Alonso, 2020). Therefore, questions regarding effective administration modes for resources, their use, preservation, and balance of interests emerge. In this sense, the environment as a setting of life and survival is the object of dispute from positions of power (Paz, 2014); it is a determining aspect at the origin of socio-environmental conflicts mediated by territorial economic growth, the future of local ecosystems, the quality of life in communities and the traditional life systems (Sabatini, 1997).

Thus, three counterparts appear in the stages of socio-environmental conflicts: (i) the State and (ii) transnational corporations, in charge of approving and directly exploiting natural resources; (iii) rural communities and environmental movements looking for the protection of ecosystems, their territories and local economies (Ortiz, 1997; Mohle, 2021). Within this framework, discussion modes are related to the interest groups that lead to the creation of governance agreements; together with the legacy of the conflict related to socio-environmental questions which, according to the context, have perpetuated a 'culture of conflict' in territories with large socioenvironmental richness (Filomeno, Heracles, Aramburu, Raymundo & Moguerza, 2020).

Latin America (mainly South America) is characterized by witnessing the most significant number of socio-environmental conflicts derived from extractive activities for minerals, hydrocarbons, and several extensive crops (Gudynas, 2014). According to the Observatory of Mining Conflicts in Latin America (OCMAL), 284 projects are involved in these conflicts, and the countries with the largest number of mining conflicts in the region are: Mexico with 58, Chile with 49, Argentina with 28, and Colombia with 19 (OCMAL, 2021). Furthermore, the problem is more complex due to added values like ancestrality and the ways of life of communities immersed in conflicting territories, as disputes derive from the property rights on resources, the intention to privatize them by opposing the recognition of collective property (Sabatini, 1997) and the application of prevailing development models (Ortiz, 2011).

Throughout time, different social movements have asked questions regarding the motives and purposes of extractive activities, as a result of problems derived from the widespread influence of the extractive sector in Latin America; hence the promotion of the defense of natural resources, due to their progressive scarcity at a global level (Composto, 2012). In this respect, Corporate Social Responsibility (CSR) within the socio-environmental context adheres to a logic

of compensation and social investment to present an image of confidence towards the responsible behavior of the corporation with the surroundings it is going to interact with (Leifsen, 2020). In parallel, it may play a discursive role in the governance of natural resources and give shape to political agreements at a local level, with implications at the national level (Frederiksen, 2019).

Corporate sectors must be aware of the socioenvironmental impact of their activities, as this awareness will allow them to design and implement initiatives with a CSR approach. Consequently, their efforts might contribute to the creation of equitable jobs, the construction of a chain of responsible value, higher transparency, the efficient use of natural resources, and the reduction of poverty (Vives, 2011). The World Business Council for Sustainable Development in Switzerland defines CSR as "the commitment undertaken by a company to contribute to sustainable economic development through collaboration with its employees, their families, the local community and society as a whole in order to improve the quality of life" (Herrera & Abreu, 2008, p. 401).

Corporate Social Responsibility means doing business based on ethical principles and following specific legal requirements to favor the surroundings in which the organization operates, and adopting an active and responsible stance before impacting them with its activities to generate sustainable development, competitiveness, and economic growth. (Raufflet, Lozano, Barrera, & García, 2012)

However, in spite of the intention to introduce responsible practices in connection with CSR, the extractive sector in Latin America shows gaps in its implementation, with a negative impact linked to corruption, socio-environmental conflict, and damage to the environment (Walter, 2016); which have been boosted in one of the regions with the most extensive biodiversity and the largest oil, natural gas and minerals reserves in the planet (Economic Commission for Latin America and the Caribbean [ECLAC], 2013). Furthermore, some studies have determined that the slow economic and social development, added to the poor creation of relevant public and private sectors in Latin America, has made it difficult or delayed the development of CSR. This results from weak corporate governance, an unfavorable climate for the creation of businesses, a smaller business scale (compared with other regions), the limited use of social audits, and the lack of specialized indexes to measure CSR performance in companies. In addition, it is evident that CSR in Latin America is influenced by Non-Governmental Organizations (NGOs), the headquarters of multinational companies and multilateral institutions, and not by the firms' initiative (Peinado-Vara, 2005; 2011; Palomino, 2011).

In this way, the widespread influence of CSR in Latin America may exacerbate or mitigate socioenvironmental conflicts arising from the natural richness of the territory and the relationship between the society and the ecosystem; hence, a new essential element plays a role in this link, namely the Social License to Operate (SLO). This "results from the fact that all companies need tacit or explicit permission from governments, communities and other stakeholders to do business" (Porter & Kramer, 2006, p.5). To this end, the SLO is the object of different types of criticism due to the pragmatic calculation it involves for some companies, mainly international ones, to get the support of the communities to operate without delay or interruptions (Owen & Kemp, 2013). Thus, for example, the approval or rejection of the SLO in Latin America has frequently been the trigger for socioenvironmental conflicts (Walter & Urkidi, 2017; Cesar, 2019), a situation that leads to analyzing the social, economic, cultural, and political repercussions of the companies that operate in the extractive sector, from the perspective of CSR, which aims to promote the sustainable development of the territory.

According to the above, the objective of this study is to analyze the socio-environmental conflicts derived from extractive activities in Latin America and the impact of CSR on the extractive sector through a systematic review of the scientific literature found on high impact databases (SCOPUS and Web of Science), in the 2012-2017 period. In this way, it is possible to identify the types of conflicts involved in the actions of extractive companies and the response from communities, specifically in territories with ecosystems that are protected due to their natural and ancestral richness; in addition to the good practices and challenges that companies face when implementing CRS as an alternative to promote environmental sustainability.

This study aims to contribute to the scientific literature on the topic by interpreting the diversity of socio-environmental conflicts that may arise in rural settings that demand the State's protection and the companies that conduct the extractive activities in territories with abundant ecological richness and a variety of natural resources. Likewise, it aims to highlight the scope of CSR in this setting and the corporate, methodological, and strategic approaches that should be undertaken to provide an authentic and legitimate relationship with the stakeholders.

The following section presents the methodology implemented, which is structured in three phases: definition of the problem, search for information, and data analysis. The bibliometric results (according to each database) and systematic review of the scientific literature collected are related. Finally, the challenges and possible actions to enhance the use of CSR as a strategy to mitigate impact are discussed, and it is concluded that the Human Rights approach is the starting point to achieve a balance between the

interests of the State and those of corporations and communities.

## 2. Methodology

The process was conducted based on the systematic review, which has the purpose of planning a bibliographical search employing an adequate combination of terms and the help of logical operators. Initially, it was necessary to define keywords and synonyms to be introduced in the search engines. According to Alfonzo (1995), a systematic review is a scientific procedure, a systematic process for searching, collecting, organizing, analyzing, and interpreting information around a specific topic.

Prior to the search, the information found was read considering the remarks from the research team, the relationship between the different works, the interpretation, and profound comprehension of the analysis topic. Likewise, it was necessary to critically assess the information to optimize the time to detect whether or not the material complied with the conditions of being relevant scientific material of quality (Vilanova, 2012). It is essential to highlight that this study corresponds to a reconstruction of the information to generate theoretical contributions by recreating and redefining new approaches and criteria that enrich and expand on the existing information (Suárez de Paredes, 2007).

# 3. Phases of the systematic review

Authors Gómez, Fernando, Aponte, and Betancourt (2014) proposed a systematic review methodology in three phases:

1) Definition of the problem: in this phase, the research question was stated, geared to inquire the following: Which are the socio-environmental conflicts resulting from the extractive activities of mining companies in Latin American countries, and their co-nnection with CSR? The scientific databases ISI Web of Science (WoS) and Scopus were reviewed to answer this question. The former, developed by Thomson Scientific, has led the academic field, mainly through the 'impact factor', which has become a tool to assess the importance and influence of publications (Falagas, Pitsouni, Malietzis, & Pappas, 2008). The second database has been developed by Elsevier Company and encompasses a worldwide multidisciplinary collection of abstracts, references, and indexes related to scientific, technical, and medical literature (Powell & Peterson, 2017). Then, a search equation was created by defining the Boolean operators to be used. On the other hand, inclusion and exclusion criteria as described in Table 1 were defined.

2) Search for information: This stage implemented an information tracing process based on the search equation built; the pertinent papers were selected after reading the titles and abstracts. Once the search equation was implemented in the WoS and Scopus databases, 372 papers were retrieved. One hundred sixteen papers were selected from WoS and 256 from Scopus.

It is worth mentioning that at this stage, a bibliometric analysis was made, consisting in studying "the quantitative aspects of the production, dissemination, and use of the information recorded, by developing mathematical models and measures which in turn serve to draw forecasts and make decisions regarding these processes" (Araújo-Ruiz & Arencibia-Jorge, 2002).

3) Data analysis: once the information was processed, it was critically analyzed and assessed through bibliometric analysis of the documents found. The results obtained from the two databases were included, together with a statistical description of the publications by author and country for 2012-2017.

Table 1. Inclusion and exclusion criteria

	Inclusion Criteria	1. Papers found in ISI Web of Science and Scopus databases.		
		2. Documents published between 2012 and 2017.		
		3. Papers published in scientific journals.		
		4. Papers published in English and Spanish.		
	Exclusion Criteria	1. Documents not related with the topic.		
		2. Papers not having a direct connection with CSR practices by companies in the extractive sector in Latin America.		
		3. Publications related with CSR practices and experiences in the extractive sector outside the Latin American sector.		
		4. All documents related with the following topics were excluded: green or renewable energies, social politics, highles		

Source: own elaboration.

## 4. Results of the bibliometric analysis

## 4.1 Scopus database

Publications by author: Figure 1 shows the authors with the highest number of publications on the topic. First, we have César C. Martins from Universidad Federal de Parana (Curitiba, Brazil), with seven papers, followed by Charbel José Chiappetta Jabbour, from the University of Stirling (United Kingdom), with six papers, and Ana Beatriz López De Sousa Jabbour, from the Universidad Estatal Paulista (Sao Paulo, Brazil) with five publications. With the publication of four papers we have: Márcia Caruso Bícego and Rosalinda Carmela Montone from the University of Sao Paulo (Brazil), Britaldo Silveira Soares-Filho from Universidad Federal de Minas Gerais (Brazil), and Marcello M. Veiga from the University of British Columbia (Canada). The remaining authors wrote three documents each.

Publications by country: the leading country in this subject of study is Brazil, with 167 publications; this goes in line with the results shown in Figure 1, as the five authors previously mentioned are affiliated to Brazilian institutions. On the other hand. Mexico stands out with 94 documents published, the United States with 54, and Spain with 21. It is important to highlight that the United States, Canada, and Europe show more depth regarding CSR in the extractive sector. Their influence may be linked to research financed by external agents outside the region, since exploration and exploitation companies working with Latin American resources are primarily foreign companies; among them, we find Canadian and USA companies, and more recently, Asian companies, specifically in China. Besides Brazil, other Latin American countries having publications on the subject are Argentina with 11 articles, Colombia with six, Ecuador with five, Chile with four, Bolivia and Uruquay with three, Peru and Costa Rica with two.

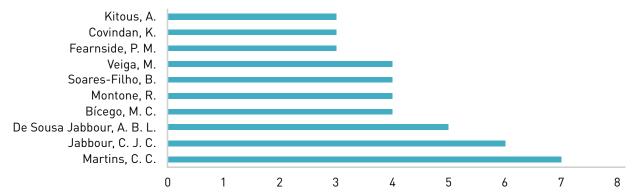


Figure 1. Publications by author in the time window 2012-2017 Source: own elaboration.

#### 4.2 Web of Science (WoS) database

Publications by author: regarding the authors standing out due to the number of publications related to the subject of analysis, it is worth highlighting that, except for researcher Studnicki Gizbert Daviken, the remaining authors have only one publication. The researcher mentioned earlier is an associate professor to the department of history at the University of McGill, in Montreal (Canada), and he is the author of two publications, with a representation of 1.72%.

Publications by country: Table 2 shows that the country leading the subject of study is the United States, with a total of 35 publications, corresponding to 30.17%, a remarkable difference as compared with the countries that follow suit. In addition, Spain counts 16 articles published (13.79%) and Mexico and England have 12 publications each (10.34%). Other Latin American countries found in the list are Brazil with 11 articles, Argentina with 10, Chile with eight, and Colombia with six.

### 5. Systematic review

# 5.1 Conflicts related to environmental impact

In Latin America, several conflicts involving natural resources were identified, among which water bodies, their use, appropriation and scarcity stand out, together with significant damage to protected ecosystems with extensive biodiversity and air pollution.

Evidence of pollution resulting from extractive activities was found in the Intag Valley, in Ecuador, with the presence of heavy metals in water bodies and damage to water sources near the location of the mine, caused by industrialized and artisanal mining, which are conducted with little environmental precautions (Marston, 2017) and cause a significant decay in the fauna and flora (Sandrini-Neto, Martins & Lana, 2016). On the other hand, Seccatore, Martin, De Tomi, and Veiga (2014) have projected that the increase in mining extraction in Ecuador makes it necessary to assess the impact of Artisanal and Small scale Mining (ASM), in order to determine the impact of these activities on health and environmental risk and to identify the possibility of transitioning to environmentally responsible operations which lead to mitigation and prevention in these territories.

It was found that some mining workers in Ecuador do not possess the technical and financial capability required for three specific critical aspects: inadequate and unsafe supplies, lack of technical knowledge, and limitation in productivity. Hence, health problems arise due to their intense labor, a reduced technological implementation and a high level of informality due to the national juridical framework. These conditions support the need to invest in promoting responsible and sustainable activities that provide a good quality of life

to both miners and their families (Seccatore, Magny & De Tomi, 2014).

Table 2. Publications by country in the time window (2012 - 2017)

Countries	Number of records	% out of 116
USA	35	30.172
Spain	16	13.739
England	12	10.345
Mexico	12	10.345
Brazil	11	9.483
Canada	11	9.483
Argentina	10	8.621
Chile	8	6.897
Colombia	6	5.172
Germany	5	4.310

Source: own elaboration.

In parallel, for 90 years, gold extraction has been the leading promoter of economic activity in the Portovelo and Zaruma regions (Ecuador). However, this activity's negative impact is related to the pollution of trans-border waters due to poor mining waste management (Adler Miserendino et al., 2013). Furthermore, mining and fossil fuel extraction have been progressively increasing in isolated areas belonging to indigenous territories in Ecuador. Although these dynamics strengthened the agricultural economy for the populations, aspects like the transportation cost and the pollution of water sources also increased considerably. Hence, the extractive activities by multinational companies are perceived as potential threats to these communities' means of living and a source of uncertainty regarding the effects following the withdrawal of the companies from the area (Bozigar, Gray & Bilsborros, 2016).

Similarly, in the historical mining center of Potosi (Bolivia), metal concentrations were identified in the water used for crops, the soil, and the potato crops due to mining lixiviates. These conditions generate a potential risk for human health, with concentrations ranging from 20 y 1100 times above the limits established at the international level. The panorama is concerning with respect to the consumption of this vital resource. Neighboring populations report negative impacts on their respiratory, digestive and kidney functions, similar to those resulting from tobacco smoking, although the tobacco consumption in the zone does not exceed 18% (Garrido, Strosnider, Wilson, Condori & Nairn, 2017).

In the case of Mexico, there are permanent disputes against extractive activities due to their negative impact, which increases the breach of inequality in connection with poverty, isolation, economic stagnation, and environmental degradation. The main areas affected are the protected ecosystems, which require an institutional reform to guard them against the influential power of big companies, starting from the social participation of inhabitants in the recognition and preservation of natural resources as local means of living (Hill, Byrne & de Vasconcellos Pegas, 2016). Within this framework,

the excessive contamination of underground waters in Huautla, Morelos, (Mexico), stands out, since several scientific studies have linked this to health conditions and a reduction in the life quality of their inhabitants (Esteller, Domínguez-Mariani, Garrido & Avilés, 2015; Avilés, Garrido, Esteller, De La Paz, Najera & Cortés, 2013).

In spite of Mexico's significant biodiversity and the efforts for its protection (12% of the country's surface), the proportion of land in concession for extractive exploitation is considerable (28% of the country's surface). However, the real impact of these activities has not been entirely ascertained, given the potential impact on hydrographic basins and water sources. Therefore, it is essential to remember the commitment governments have when granting extraction licenses, as well as the attention they should pay to dwellers who are against this type of activities; added to studies that provide accurate information on the characteristics of the territories to guarantee their protection, and even the possibility to cancel environmental licenses previously awarded (Armendáriz-Villegas et al., 2015).

One of the regions characterized by its immense biodiversity is located in San Luis Potosi [Mexico]. This area has experienced noticeable changes in the use of the soil due to conducting economic activities like shepherding and extraction. Hence, the need is highlighted to conduct more rigorous studies to determine the proportion of protected areas, types of soils, ecoregions, and altitudinal zones, which will lead to governmental actions to structure a better inventory of the territory and the definition of the areas that are continuously exposed to this type of activities (Chapa-Vargas & Monzalvo-Santos, 2012).

In the specific case of Peru and the oil extraction, the country has large reserves identified in the Amazon region, which leads to several social and environmental challenges, primarily because of the objectives set by the nation in terms of crude oil extraction. Additionally, there is the projection of possible socioenvironmental conflicts arising from the zones' natural richness that provide a territorial ecological balance (Chávez-Rodríguez, Szklo & Lucena, 2015).

In Chile, economic growth is primarily correlated to mining activities, which leads to a considerable number of socio-environmental conflicts. Furthermore, this element is linked to practices from the mining sector at the international level that have been adapted to the Chilean economic and social dynamics, where the extractive activities are presented as an ecological and political-state project, ignoring its repercussions on native populations' life quality, such as the Aymara. Consequently, socio-environmental conflicts may not be taken as an isolated fact, but as a multi-scale, historical phenomenon caused both by global capitalism and multilateral institutions, NGOs, intellectuals, and local native and non-native players (Romero Toledo, Videla & Gutiérrez, 2017).

5.2 Conflicts related to territorial struggles

According to this type of conflict, situations leading to displacement and relocation of communities were contemplated, as well as irregularities in the purchase price of the land, and the illegal occupation of these territories, which directly affect the vulnerable populations in the area.

In Peru, several conflicts are based on the poor administration of vital resources like the land and the water, such as the environmental consequences affecting the community and the lack of regulation to conduct mining activities; these are threatening factors for populations (Dietz & Engels, 2017). In addition, extractive activities in some areas of Peru have set the grounds for the communities' resistance to the execution of mining projects. However, populations with little state coverage, those isolated from the national dynamics, may obtain local benefits due to their attachment to their land, overcoming political and social marginalization, which leads to mining companies losing interest in taking over (Conde & Le Billon, 2017).

In the case of Bolivia, it is evident how the government's weak legislation favors cooperation among certain institutions that promote extractive activities, without considering the requests for restrictions by the dwellers, mainly by native communities (Andreucci & Radhuber, 2017). In this respect, Guarani peoples have struggled with organizing consultation processes and their prior free, informed consent. In this way, socioenvironmental monitoring strategies are adopted, given the claim for territorial control and sovereignty on resources through progressive level reforms in defense of territory, autonomy, and self-determination (Schilling-Vacaflor, 2017).

Regarding Colombia, cases such as that of the African-Colombian artisanal miners who disagreed with the immersion of industrial mining were identified, since the concession of territories through doubtful processes affected more than 1300 traditional artisanal miners in Suarez, Cauca. However, they organized themselves to appeal to institutional bodies and managed to stop the initial tests multinational companies were conducting in their territory (Dietz & Engels, 2017).

Similarly, in El Pangui (Ecuador), due to the increasing number of conflicts and social and environmental impact, a CSR strategy was proposed to auditing companies to mitigate conflict and reduce the risks of extractive activities. This strategy included four principles: economy (sustainable development), ethics (responsibility), philanthropy (care for the community and the environment), and legality (follow-up according to the law). Nevertheless, this created adverse reactions that led to further conflict, mainly because of the negative image companies projected by evading responsibilities, diluting and disarticulating the conflict, and contributing to polarization through *Greenwashing* (Warnaars, 2012).

In Mexico, problems linked to the invasions of territories of vulnerable populations were identified, as in the case of the town of Huichol and the Canadian company First Majestic, where lands considered sacred, where artisanal mining had been taking place for more than 200 years, were invaded. To file for the project, the foreign company considered the component of "sustainable mining", involving care for the environment, transparency, and a commitment with the local communities through the sponsoring of long-term projects. Facing the people's resistance, the mediatic exposure of the conflict, and legal pressure, the company suggested constructing water treatment plants and eliminating cyanide from extractive processes (Boni, Garibay & McCall, 2015).

### 5.3 Conflicts related to the violation of human rights

Different elements leading to the violation of Human Rights due to the development of extractive activities in the region are presented below. Violence is one of the criminalization factors identified, together with irregularities in the institutional sector, flaws in public regulations and policies, the absence of prior consultation, and significant changes affecting the quality of life in the communities.

In view of the boom in the price of minerals, multinational companies have expanded their operations in Latin America. In consequence, the reduced regulations and the negative impact of such activities have led to conflicts. As a result, the need to jointly cooperate with the civil society, NGOs, and the legislation to find a peaceful solution to conflicts stands out amidst a state and civil society that are losing ground to corporations (North & Young, 2013). A case in point took place in Ecuador, where the idea of militarization and mining as a way of life in indigenous territories led to the occupation of lands for capital profit, leaving aside strategic components for development and a suitable living (Shade, 2015). In this regard, the population decided to appeal to international bodies to attain the mitigation and prevention of negative impact on the population, especially due to the violation of the right to water and the stigmatization of defenders of nature as publicly disqualified (Marston, 2017).

On the other hand, in the El Mirador mine (Ecuador) case, the mestizo and indigenous populations such as the Shuar are under constant pressure from the government and the mining company bidding for the extractive project. In the meantime, the community has resorted to requests for prior consultation and environmental management to have a say in the decision-making process through the participation of famous ecologists and social scientists. At this instance, it was evident how the government uses juridical tools to benefit the extractive sector, unprotecting the directly and indirectly affected population (Leifsen, Sánchez-Vásquez & Reyes, 2017; Sánchez-Vázquez, Leifse & Verdú, 2017). In the case

of Colombia, mediatic programs and regulations have promoted the appearance of junctures in the socio-environmental setting; as a result, the society has organized itself through the help of local players and international allies to propose solutions that go beyond the local, regional, and national setting (Dietz & Engels, 2017).

In Peru, several conflicts have arisen in connection with the loss of rights over the land, reduced guarantees by dwellers, and a nonexisting local projection by mining companies (Dietz & Engels, 2017). A case in point is the lack of recognition of prior consultation by the State regarding the development of extractive projects, an aspect that has led to community manifestations in view of the legal voids and superficial agreements (Schilling-Vacaflor & Flemmer, 2015). In the case of Bolivia, institutional reforms have favored the mining exploitation protecting multinational companies and independent miners; in this way, the environmental rights of indigenous communities are excluded, and the mining expansion is promoted through repression, the demobilization of social forces, and the limited scope of state efforts (Andreucci & Radhuber, 2017).

In spite of progress in the matter of rights, some Latin American countries continue to record a gap regarding the regulatory framework and the absence of administrative and political practices by the State. This takes place when native populations file a lawsuit concerning their lands and resources, and in return, they get intimidation, repression, imprisonment, and the assassination of natives. In parallel, poverty, cultural discrimination, social inequality, and political exclusion are consolidated for this segment of the population (Martínez, 2015). The scenarios described show that mining industries have high levels of influence, and they model the dynamics of the extractive conflict through their actions by using degrading strategies to attain their objectives. For example, in the community of Ejidal, in Mexico, mining companies implemented attitudinal tactics like blame, self-victimization, neutralization of the debate, and ambivalence to position the advantages of mining projects through their discourse and attain the support of the community (Penman, 2016).

The significant growth of coal mining in Chile through projects developed in Patagonia has reignited different conflicts due to the opposition of neighboring inhabitants and the reduction of permits to initiate extractive activities. The decision-making process by the government has been based on exclusion, lack of recognition, and participation; in this regard, the organization and construction of solidarity networks by the communities affected has been promoted, with vast political connections that allow for the creation of paths for environmental justice (Bustos, Folchi & Fragkou, 2017).

The government's support to the private accumulation of capital through the foreign exploitation of mining resources and the violation of ethnical rights

is indisputable; hence, the violent disputes generated by the appropriation of mining territories inhabited by indigenous peoples stand out, as well as the legal and illegal allocation of land titles that hinder access by African-descent communities to environmental resources. In turn, policies and laws favoring extractivism in Latin America and military intervention to guarantee private and foreign investment displace agricultural and artisanal mining activities, directly involving racial and ethnic marginalization, which promote inequality in the distribution of wealth (Vélez-Torres, 2014). According to Weitzner (2017), the affected communities should resort to juridical instances or mobilizations to create pressure and get the attention of governments to have a say in the results of mining concessions.

Although Latin American governments offer advantages in the development of extractive projects, instances like prior consultation, the *open cabildo*, activism, and the organization of community sectors have bridged the participation gaps that hinder the participation of the groups directly affected; added to the limited actions by the academy in the face of extractive activities and the judicial actions that stop unilateral actions by the government (Roa-García, 2017). Furthermore, policies that integrate economic, environmental, social, and governmental regulation are promoted through participative action to use better the limited resources available (Arango-Aramburo et al., 2017).

5.4 New proposals for the mitigation and prevention of socioenvironmental conflicts

As we have mentioned before, local communities have not only reacted to the environmental impact of extractive activities but also to the lack of representation and participation by local dwellers in decisions related to their development. Consequently, in order to expand the knowledge on extractive projects, alliances have been created for discourse training, local narratives, and combined alternatives (Veltmeyer, 2013). Although the union between NGOs, communities, lawyers, and scientists has contributed from the juridical and legal perspective to the rejection of these activities, the effectiveness of these alliances is not yet evident to the lack of consistent evidence (Conde, 2017). It is worth highlighting that on some occasions, the prosecution of environmental crimes in Latin America reveals and addresses the deficiencies in environmental policies and their contradiction with state economic policies; hence, the state network and citizen cooperation strategies must be fortified through elements like civil participation, transparent promotion and neighborhood watch (Ungar, 2017).

Starting from the situations mentioned, some authors propose alternative methodologies that make it

possible to provide solutions to the different conflicts unleashed by extractive activities in Latin America.

Among the solutions proposed, we find the LSO as an indicator for social acceptance and guarantee before local players and multinational companies to mitigate risks originated by unbalanced power, conflicts of interests, and the silencing effects of global certification schemes. This license has been implemented in different settings with a precautionary approach, as it results from a global analysis of the situation; that is, this action may underestimate and bias the real impact of the extractive project (Ehrnström-Fuentes & Kröger, 2017). For a correct development of the LSO license, it is necessary to consider two models of dialogue: (i) a learning dialogue with no specific form, agenda, or expected result, and (ii) a strategic, structured dialogue with specific results. The two work as a tool to solve conflicts in frameworks of community/public participation and corporate communications (Mercer-Mapstone, Rifkin, Moffat & Louis, 2017).

An example of the implementation of LSO comes from the company Cementos Progreso in Guatemala, where there was relevant participation by the government and the citizens; in this regard, mining was proposed as an alternative for development, quaranteeing citizen participation in the mining operation. With this socialization, the community was able to tangibly witness the actions of an extraction project, with the support of transparency and responsibility from the government, added to financial aid and in-kind assistance by the company. As a result of the above, threats to intimidate social participation were curved by the confidence built among dwellers to promote accountability and transparency (Constanza, 2016). Thus, with the implementation of the license, optimal results have been witnessed at the international level by guaranteeing the participation of society at two levels: (i) representativeness and interest by the federal, national and local government; (ii) lost opportunity cost or net benefits to be counted on in case the project is not considered (Vale, 2016).

On the other hand, *Environmental Justice* is identified as an alternative for resolving conflicts when consolidating the political and territorial autonomy originated by the debate on extractivism and the global environmental transformation. It is based on territorial principles of non-human actors and the indigenous cultures, through four axes: (i) positioning of the relationships with non-human actors (relationships with nature); (ii) horizontal and vertical territorial policies (spatial relationship); (iii) relationships between women and men under the categories of gender; and (iv) life practices based on their knowledge, autonomy and environmental self-determination (Ulloa, 2017).

An example of Environmental Justice was identified in Bolivia, facing a challenge of ethnic participation and its potential to create inclusive and effective ways to make decisions; to this purpose, evaluation through the Consent and Free and Informed Consultation was proposed, looking for effective participation to obtain the consent of indigenous people for the development of mining projects and legal reforms on mining. This instance has gained importance in the equitable management of resources and the inclusion of citizen participation practices to avoid socio-environmental conflicts through the participation and inclusion of complex and ethnically diverse democracies (Fontana & Grugel, 2016).

In the legal aspect, countries traditionally recognized by the positioning of mining companies should increase their demands on the compliance of international standards when locating their headquarters; the above is since there are not enough mechanisms for compliance and respect of the rights of the communities in the nations where they are located. Moreover, according to the behavior of the raw materials market, the dependence of foreign countries on these natural resources will increase. In consequence, the aim is to reduce the inequality gap existing among nations that have a significant component in extraction activities so that these are conducted responsibly (Schaffartzik, Mayer, Gingrich, Eisenmenger, Loy, & Krausmann, 2014) and provide peaceful solutions to socio-environmental conflicts, overcoming legal and legislation limitations (Studnicki-Gizbert & Bazo, 2013).

Another model proposed to replace extractive activities is the Yasuni Ishpingo Tambococha Tiputini (Yasuni ITT) model in Ecuador, whereby the objective is to achieve collaborative management of resources at the international level to compensate the products of the exploitation of protected areas; in this way, a large number of social, environmental and economic conflicts would be avoided. Unfortunately, despite the innovative nature of this proposal, it did not succeed due to the lack of regulations and legislation in a nation used for extractivism and the refusal to generate resources differently. However, it is expected that this initiative will serve as a point of reference for other alternatives, including the protection of indigenous peoples, the preservation of biodiversity, and the implementation of a proper constitutional framework for this type of projects (Pellegrini, Arsel, Falconi & Muradian, 2014).

## 6. Discussion and conclusions

The study's objective was to analyze the socioenvironmental conflicts derived from extractive activities in Latin America and CSR incidence in the extractive sector. In this way, it was possible to identify three types of conflict having a direct effect on the sustainability of territories and the protection of ecosystems, and which require special attention, added to the widespread influence of CSR on the positive and negative effects of extractive activities taking place in territories requiring the mitigation of environmental impact.

We wish to highlight that the bibliometrics served as input for the development of a systematic review, in order to identify influential authors and countries on the subject of the study, as domains that make it possible to associate the findings. Likewise, it was possible to determine which countries outside Latin America have financed research on the extractive sector in the region. Hence, in Latin America, Brazil has the largest number of studies on the subject; however, deeper analysis on the socio-environmental conflict and their connection with CSR is revealed by studies conducted in Bolivia, Chile, Colombia, Ecuador, Mexico, and Peru. Regarding CSR, the countries showing a deeper level of analysis and emphasis were the United States and the United Kingdom, where the first theoretical approaches on the subject emerged.

According to the different conflicts resulting from extractive activities, CSR strategies should be required as a standard marker of receptivity from the companies, involving communities in the projects through political ecology, and contemplating the probability of opposition to the use of territories and natural resources in terms of social and environmental guarantees (Studnicki-Gizbert, 2016). Although some companies have opted for the implementation of CSR programs, still profound interdisciplinary analyses are required to prioritize the social and environmental factors to promote confidence and the approval of communities (Haro de Rosario, Saraite, Caba & Gálvez, 2016), leaving aside excluding, limited, superficial and irregular commitment (Hilson, 2012). For example, some companies are characterized by building alliances based on corporate connections without providing solutions through social components that benefit communities (Abreu & Barlow, 2013).

On the other hand, CSR is generally deployed as an unequal process lacking proactiveness (Valor, 2012). Consequently, one factor that has hindered CSR development is the adoption of international models to the region's reality. Therefore, it is necessary to consider the local history of each community; otherwise, solutions will be mediated by generic strategies adapted to other contexts (Suescun, Lindsay & du Monceau, 2015). Hence, plurality is evident when implementing CSR in Latin American countries; in this way, Brazil and Mexico focus on the creation of job opportunities at a local level; Peru focuses on the generation of income, and in Colombia, the impact may vary depending on the players involved (Roy Grégoire & Monzón, 2017).

Considering the damage caused to natural resources by the extractive industry and the interaction of human beings with vital resources, it is necessary to study the possible impact on health caused by exposure to pollutants resulting from this type of economic

activities; and also, to look for effective methods for prevention and control given the vulnerability of the population (Manzanares, 2016; Carmona et al., 2016; Seccatore, Veiga, Origliasso, Marin & De Tomi, 2014). Hence, it is crucial to recognize that some dimensions of CSR are not given the necessary attention; consequently, more monitoring and control mechanisms are required to supervise the achievement of activities or benefits promised by CSR in the environmental field (Benites-Lazaro & Mello-Théry, 2017).

Regarding territorial struggles derived from extractive activities, the relationship between the community and the companies implementing CSR may be understood from two aspects: the ongoing opposition supported on claims about the future of ecosystems affected by extractivism, community participation, the relationships of power, and the decision-making process (Mohle, 2021). In contrast, some mining companies have acted as substitutes for regional and local state institutions, and local communities have come to them looking for support (Frederiksen, 2019). Therefore, the Partners for Development (PfD) model is deployed and understood as "corporate participation in local development initiatives, working together with governments at different levels or groups of civil society" (Arellano-Yanguas & Bernal-Gómez, 2017, p.252).

In short, it is concluded that recognizing Human Rights among stakeholders sets a fundamental principle in the transformation of socio-environmental conflicts derived from extractive activities, in line with the CSR approach for the protection of ecosystems and the relationships between corporations and the State, and the communities. Furthermore, Roy Grégoire and Monzón (2017) estimate that the institutionalization of CSR merges in terms of the main juridical and political aspects. Consequently, it is understood that the regulatory impact of mining activities should transcend the regulation of the extractive sector. In the ideal setting, companies may become political actors looking for peace and have the authority to manage conflict and the violation of Human Rights with regards to their activities. Under this perspective, collective action is recognized (Rodríguez, Ortiz & Broitman, 2020), corporate actions that have led to the violation of Human Rights are assumed (Neyra, 2019), and there is a commitment to consolidate the relationship between the environment and the quality of life (Aguilar, 2017).

#### Conflict of interest

The authors declare no conflict of interest.

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